

ARIZONA DEPARTMENT Environmental Quality

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Director

Notice of Proprietary Treatment Product Listing Pursuant to Arizona Administrative Code R18-9-A309(E) **ADEQ File No. 20130308**

1. Proprietary Treatment Product Name, Model, and Description

Product Name:

Norweco Hydro-Kinetic®

Model:

Model 600 FEU Wastewater Treatment System

Description:

The Norweco Hydro-Kinetic System is a combination of several processes: primary treatment, flow equalization, secondary treatment by extended aeration activated sludge process (nitrification), denitrification, and filtration processes. The system consists of precast concrete or HDPE with two or three tank

configurations. The two tank configuration consists of a four chamber monolithic

tank that includes pretreatment, anoxic, aeration, clarification, and flow

equalization chambers. This tank is followed by a separate Hydro-Kinetic[®] filter chamber. The three tank configuration includes a separate pretreatment chamber followed by a monolithic tank that includes anoxic, aeration, clarification, and flow equalization chambers. This tank is followed by a separate Hydro-Kinetic®

filter chamber which is the final step in the treatment process.

2. Manufacturer Information

Name: Norweco, Inc.

Address: 220 Republic St.

City/State/Zip: Norwalk, OH 44857

Phone: 419-668-4471

Fax: 419-663-5440

Website: www.norweco.com

3. Recognized Treatment Performance

Parameter		Averaging Time	Maximum Value for Parameter & Averaging Time
5-Day Biochemical Oxygen Demand (BOD ₅), mg/l	,	30-day arithmetic mean	10
Total Suspended Solids (TSS), mg/l		30-day arithmetic mean	10

Total nitrogen (as nitrogen), mg/l	five-month arithmetic mean	15
Total coliform, colony forming units/100ml	95th percentile	300,000*

^{*} Default value due to the lack of submitting 3rd party test data per R18-9-E315(B).

4. Product Applicability and Limitations for Use for a Recognized General Permit Technology

Applicability: This listing is for the treatment technology specified in A.A.C. R18-9-E315. **Limitations:**

- **A.** This product is only approved for wastewater design flow, per A.A.C. R18-9-A309 (B)(3) up to 600 gpd, from homes and small business.
- **B.** This listing is only for technology approved in accordance with A.A.C. R18-9-E315 and does not include any other technology/product including disinfection devices.
- C. This listing EXCLUDES appurtenances which are considered to be "other manufactured materials and components" such as an alarm, control panel, control, switch, timer, wiring, other electrical devices, and installation components; which are subject to both the manufacturer specifications and any more restrictive requirement in 18 A.A.C. 9, Article 3.

5. Documents Used as the Basis for this Proprietary Treatment Product Listing Notice

Application for Treatment Product Listing:	12/10/13 (NOTE 1)		
3 rd Party Test data:	NSF Report, dated February 2013 & Junel 2012.		
Installation Instructions:	Norweco Hydro-Kinetic [®] Wastewater Treatment System Model 600 FEU Installation and Norweco Hydro-Kinetic [®] Tank Delivery and Setting. Tab 6&9 - Arizona PPL Applications 12/10/13.		
Manufacturer's Warrantee:	Norweco Hydro-Kinetic [®] Model 600 FEU Two year limited warranty. Tab3 - Arizona PPL Applications 12/10/13.		
Manufacturer's Specifications:	Norweco Hydro-Kinetic [®] Model 600 FEU Wastewater Treatment System Specifications. Tab 6 - Arizona PPL Applications 12/10/13.		
Manufacturer's Design Drawings:	Detail Design Drawings of the Tanks for design flow - Norweco Hydro-Kinetic [®] Model 600 FEU of 600 gpd dated 9/18/13, two tank configuration, drawing number PC-5-100. Tab 4 - Arizona PPL Applications 12/10/13. Detail Design Drawings of the Tanks for design flow - Norweco		
	Hydro-Kinetic [®] Model 600 FEU of 600 gpd, Three tank configuration, drawing number PC-5-1006, signed and sealed by a P.E. on 6/24/14. Tab 4 - Arizona PPL Applications 12/10/13.		
Owner's Manual:	Norweco Hydro-Kinetic [®] Model 600 FEU Owner's Manual. Tab 2 - Arizona PPL Applications 12/10/13.		
Operation Manual:	Norweco Hydro-Kinetic [®] Wastewater Treatment System Model 600 FEU Operation Manual. Tab 6 - Arizona PPL Applications 12/10/13.		
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NOTE 1 – This document is an integral part of this Proprietary Treatment Product Listing Notice and is included in the Arizona Department of Environmental Quality website at:

http://www.azdeq.gov/environ/water/engineering/product.html

6. Terms and Conditions for this Proprietary Treatment Product Listing Notice

- A. This Notice of Proprietary Treatment Product Listing shall remain in effect until any of the following occurs:
 - i. Applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised;
 - ii. Documents used for the basis of this listing are altered or modified;
 - iii. Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission;
 - iv. The manufacturer requests termination of this listing;
 - v. A listing error or omission is identified; or
 - vi. The manufacturer and ADEQ mutually agree to reissue this notification to incorporate correction or update for any reason.
- B. This Notice of Proprietary Treatment Product Listing does not apply when the:
 - i. Listed proprietary treatment product is modified or operated in a manner that conflicts with Arizona law or the documents used for the basis of this listing action in Section 6.
 - ii. Listed proprietary treatment products is used in a manner that cannot be achieved the performance in Section 3 above.
- C. This Notice of Proprietary Treatment Product Listing applies solely to the product specified in Section 1 above.
- D. The manufacturer is responsible for notifying the ADEQ of changes to contact information at the following address:

Attention: Product Listing Supervisor

Engineering Review Desk,

1110 West Washington Street

Phoenix, AZ 85007.

E. The listing by ADEQ of any proprietary product or service is not an endorsement by ADEQ or the State of Arizona. ADEQ does not endorse, represent, guarantee, warranty or defend the use of any product which is authorized for use pursuant to A.A.C. R18-9-A309(E). Product providers are a direct source unrelated to ADEQ or the State of Arizona. Use of any listed product is at the user's risk and the State assumes no liability.

Signature:		Date Signed:	September 24,2014
Title:	Director, Water Quality Division		

ADEQ File #:20130308 Reviewer: Tanveer Faiz